Bol. Inst. Esp. Oceanogr. 17 (3 y 4). 2001: 333-335

BOLETÍN. INSTITUTO ESPAÑOL DE OCEANOGRAFÍA
ISSN: 0074-0195

NOTE

First record of *Selene dorsalis* (Gill, 1862) (Osteichthyes: Carangidae) in the Canary Islands (Central-east Atlantic)

J. J. Castro-Hernández

Departamento de Biología, Universidad de Las Palmas de Gran Canaria, Edifício de Ciencias Básicas, Campus de Tafira. 35017 Las Palmas de Gran Canaria, Canary Islands, Spain. E-mail: josejuan.castro@biologia.ulpgc.es

Received February 2001. Accepted July 2001.

ABSTRACT

We report the capture of a specimen of *Selene dorsalis* (Gill, 1862), a rare species in waters north of the Cape Verde Islands and Senegal. This is the first time that it has been recorded among the ichthyofauna of the Canary Islands.

Key words: *Selene dorsalis*, Central-east Atlantic, Canary Islands.

RESUMEN

Primera cita de* Selene dorsalis *(Gill, 1862) (Osteichthyes: Carangidae) en las islas Canarias (Atlántico centro-oriental)

Se informa de la captura de un ejemplar de Selene dorsalis (Gill, 1862), *especie rara en las aguas al norte de las islas de Cabo Verde y Senegal. Es la primera cita de esta especie para la ictiofauna de las islas Canarias.*

Palabras clave: Selene dorsalis, *Atlántico centro-oriental, islas Canarias.*

In September 2000 a specimen of the African moonfish *Selene dorsalis* (Gill, 1862) was fished off Tazacorte, on the west coast of La Palma Island (28º 38' N, 17º 58' W; Canary Islands). The individual was caught during the night in surface waters, using a purse seine (Bas *et al.*, 1995), together with horse mackerel *Trachurus picturatus* (Bowdich, 1825). This is the first time that *S. dorsalis* has been recorded as a member of the ichthyofauna of the Canary Islands.

The specimen's total length was 23.3 cm, and it weighed 142.9 g of weight (table I). The distinctive characters were coincident with those given by Smith-Vaniz and Berry (1981). The body was short, very deep (its depth being 2.06 times its fork length) and extremely compressed, with ventral profile more convex than dorsal. Head profile rounded at top and sharply sloping through a slight concavity in front of the eye to a blunt snout

Table I. Morphometric and meristic data of the specimen of *Selene dorsalis* caught in La Palma Island

	cm
Total length	23.3
Fork length	20.2
Standard length	18.8
Head length	5.2
Eye diameter	0.95
Base of the first dorsal fin	0.82
Base of the second dorsal fin	8.82
Base of anal fin	8.97
Length of pelvic fin	0.76
Length of pectoral fin	6.38
First dorsal fin distance	5.0
Second dorsal fin distance	8.77
Prepectoral fin distance	5.77
Preanal fin distance	9.03
Prepelvic fin distance	5.47
Length of caudal peduncle	1.6
Upper jaw length	2.32
Lower jaw length	2.11
Body depth	9.8
Total weight	142.9 g
Fin rays	
1st Dorsal	III + IV + III
2nd Dorsal	I + 23
Pelvic	6
Pectoral	17
Anal	II + I + 20
Scutes over caudal peduncle	17
Upper gill rakers	8
Lower gill rakers	31

with lower jaw protruding (figure 1). Eye moderately small, with head length 4.3 times its diameter, compared with the range of 3.3 to 4.2 given by Smith-Vaniz and Berry (1981). Upper jaw short, expanded at the posterior end, and ending far below and about under the anterior margin of the eye. Lower jaw had a narrow irregular band tapering to an irregular row posteriorly. Gill-rakers (including rudiments): 8 upper, 31 lower. Contrary to reported by Smith-Vaniz and Berry (1981), African lookdown showed two dorsal fins, as reported for juveniles shorter than 6 cm fork length by Smith-Vaniz and Berry (1981, 1986). First dorsal fin with 4 spines (0.82 cm in length), preceded by 3 smaller ones (not very apparent) separated from the fin. The longest (second) spine of the first dorsal fin about equal in length to body thickness taken at the level of the pectoral fin (0.82 cm). Between first and second dorsal fin there were 3 other spines. Second dorsal fin with 1 spine and 23 soft rays (8.82 cm in length). Anal fin with 2 spines (reabsorbed and not apparent) separated from the rest of the fin, followed by 1 spine and 20 soft rays (8.97 cm in length). Second dorsal fin lobe only slightly elongated, contained 10.6 times in fork length (the range given by Smith-Vaniz and Berry (1981) was from 7.2 to 10.1 times). Pelvic fin relatively short, becoming nearly rudimentary (one-third of the upper jaw length).

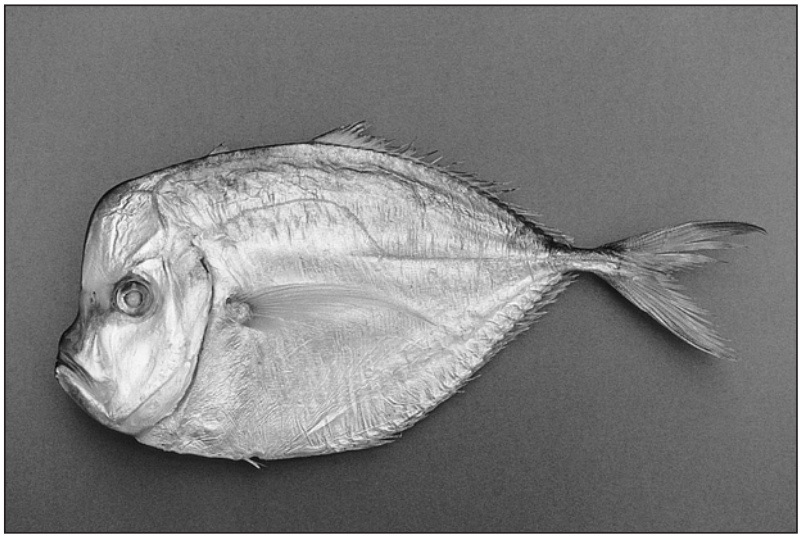
Scales small and cycloid (smooth to touch), covering most of the lower half of the body but absent anteriorly on most of area from pelvic fin base to junction of curved and straight parts of lateral line. Scutes in straight part of lateral line weak, scarcely differentiated, numbering 17 over caudal peduncle.

When fresh, the body and head were silvery, with a light metallic bluish cast dorsally. A faint dark spot on edge of opercle near upper margin and a narrow black area on top of caudal peduncle. The specimen also showed a narrow black line along the tip of the snout, from the ventral edge of the lower jaw to almost the lower margin of the eye. Fins were clear, with olive yellow tints on second dorsal, anal, pectoral and caudal fin lobes. Pelvic fins white.

The Eastern Atlantic distribution of *S. dorsalis* is not well established, the species being rare north of 18º N (Smith-Vaniz and Berry, 1986). However, there are records in the literature for Portugal and Madeira (Smith-Vaniz and Berry, 1981; Smith-Vaniz, Quéro and Desoutter, 1990). The African look-down is common off the Cape Verde Islands, and from Senegal to South Africa (Smith-Vaniz and Berry, 1981; Seret, 1990). The species is caught with pelagic and bottom trawls, especially off Ghana (Smith-Vaniz and Berry, 1981), and its captures from 1987 to 1996 fluctuated between 1 940 and 6 077 metric tons (Anon., 1998).

S. dorsalis is a schooling species that lives near the bottom, from inshore waters to depths of at least 100 m (Smith-Vaniz and Berry, 1981, 1986). Young of less than 3 cm fork length occur near the surface, and juveniles may be found in bays and river mouths (Smith-Vaniz and Berry, 1981). The presence of this and other tropical and rare fish species (Castro-Hernández and Martín-Gutiérrez, 2000) in waters of the Canary Islands could be related to climatic events that produce episodes of local warming, probably related with fluctuations in the frontal zones between Cape Blanc and Cape Verde (Wauthy, 1983) and the North Atlantic Oscillation.

Figure 1. African lookdown *Selene dorsalis*



ACKNOWLEDGEMENTS

My thanks to the fishermen's associations Virgen de Las Nieves of Santa Cruz de La Palma and Tazacorte (La Palma, Canary Islands), and to Mr Hermenegildo (Gildo) Martín González for making possible this new record for the ichthyofauna of the Canary Islands.

REFERENCES

Anon. 1998. FAO Fisheries Series 50. FAO Statistics Series 140. In: *FAO yearbook. Fishery statistics. Capture production 1996*. Vol 82: 694 pp. Food and Agriculture Organization. Rome.

Bas, C., J. J. Castro, V. Hernández-García, J. M. Lorenzo, T. Moreno, J. G. Pajuelo and A. G. Ramos. 1995. *La pesca en Canarias y áreas de influencia*. Ediciones del Cabildo Insular de Gran Canaria. Madrid: 331 pp.

Castro-Hernández, J. J. and A. Y. Martín-Gutiérrez. 2000. First record of *Holocentrus ascensionis* (Osbeck, 1765) (Osteichthyes: Holocentridae) in the Canary Islands (Central-east Atlantic). *Scientia Marina* 64 (1): 115-116.

Seret, B. 1990. *Poissons de mer de l'ouest africain tropical*. Orstom. Paris: 450 pp.

Smith-Vaniz, W. F. and F. H. Berry. 1981. Carangidae. In: *FAO Species Identification Sheets for Fishery Purposes. Eastern Central Atlantic; fishing Areas 34, 47 (in part)*. W. G. Fischer, G. Bianchi and W. B. Scott (eds.) II. Canada Funds-in-Trust. Ottawa, Department of Fisheries and Oceans Canada, by arrangement with the Food and Agriculture Organization of the United Nations. Ottawa, Canada.

Smith-Vaniz, W. F. and F. H. Berry. 1986. Carangidae. In: *Fishes of the North-eastern Atlantic and the Mediterranean*. P. J. P. Whitehead, M. L. Bauchot, J. C. Hureau, J. Nielsen and E. Tortonese (eds.) II: 835-836. Unesco. Paris: 1 007 pp.

Smith-Vaniz, W. F., J. C. Quéro and M. Desoutter. 1990. Carangidae. In: *Check-list of Fishes of the Eastern Tropical Atlantic*. J. C. Quéro, J. C. Hureau, C. Karrer, A. Post and L. Saldanha (eds.) II: 745-746. Junta Nacional de Investigação Científica e Tecnológica, European Ichthyological Union and Unesco. Lisbon: 1 080 pp.

Wauthy, B. 1983. Introduction à la climatologie du Golfe de Guinée. *Oceanographie Tropical* 18: 103-138.